

SEQUENCE LISTING

<110> NOVARTIS AG
NOVARTIS PHARMA GMBH

<120> OCULAR GENE THERAPY

<130> 116566-010

<140>

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<150> PCT/EP03/09497

<151> 2003-08-27

<150> 60/406,470

<151> 2002-08-28

<160> 25

<170> PatentIn Ver. 3.3

<210> 1

<211> 183

<212> PRT

<213> Homo sapiens

<400> 1

His Ser His Arg Asp Phe Gln Pro Val Leu His Leu Val Ala Leu Asn
1 5 10 15

Ser Pro Leu Ser Gly Gly Met Arg Gly Ile Arg Gly Ala Asp Phe Gln
20 25 30

Cys Phe Gln Gln Ala Arg Ala Val Gly Leu Ala Gly Thr Phe Arg Ala
35 40 45

Phe Leu Ser Ser Arg Leu Gln Asp Leu Tyr Ser Ile Val Arg Arg Ala
50 55 60

Asp Arg Ala Ala Val Pro Ile Val Asn Leu Lys Asp Glu Leu Leu Phe
65 70 75 80

Pro Ser Trp Glu Ala Leu Phe Ser Gly Ser Glu Gly Pro Leu Lys Pro
85 90 95

Gly Ala Arg Ile Phe Ser Phe Asp Gly Lys Asp Val Leu Arg His Pro
100 105 110

Thr Trp Pro Gln Lys Ser Val Trp His Gly Ser Asp Pro Asn Gly Arg
115 120 125

Arg Leu Thr Glu Ser Tyr Cys Glu Thr Trp Arg Thr Glu Ala Pro Ser
130 135 140

Ala Thr Gly Gln Ala Ser Ser Leu Leu Gly Gly Arg Leu Leu Gly Gln
145 150 155 160

Ser Ala Ala Ser Cys His His Ala Tyr Ile Val Leu Cys Ile Glu Asn
165 170 175

Ser Phe Met Thr Ala Ser Lys
180

<210> 2
<211> 551
<212> DNA
<213> Homo sapiens

<400> 2
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gcggcatgcg gggcatccgc ggggcccact tccagtgtt ccagcaggcg cgggccgtgg 120
ggctggcggg caccttccgc gccttccgtg cctcgcgctt gcaggacctg tacagcatcg 180
tgcgccgtgc cgaccgcgca gccgtgccca tcgtcaacct caaggacgag ctgctgtttc 240
ccagctggga ggctctgttc tcaggctctg aggttccgct gaagcccggg gcacgcattc 300
tctcctttga cggcaaggac gtcttgaggc accccacctg gcccagaag agcgtgtggc 360
atggctcgga ccccaacggg cgcaggctga ccgagagcta ctgtgagacg tggcggacgg 420
aggctccctc ggccacgggc caggcctcct cgctgctggg gggcaggctc ctggggcaga 480
gtgccgcgag ctgccatcac gcctacatcg tgctctgcat tgagaacagc ttcatgactg 540
cctccaagta g 551

<210> 3
<211> 207
<212> PRT
<213> Mus musculus

<400> 3
Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15
Gly Ser Thr Gly Asp Ala Ala His Thr His Gln Asp Phe Gln Pro Val
20 25 30
Leu His Leu Val Ala Leu Asn Thr Pro Leu Ser Gly Gly Met Arg Gly
35 40 45
Ile Arg Gly Ala Asp Phe Gln Cys Phe Gln Gln Ala Arg Ala Val Gly
50 55 60
Leu Ser Gly Thr Phe Arg Ala Phe Leu Ser Ser Arg Leu Gln Asp Leu
65 70 75 80
Tyr Ser Ile Val Arg Arg Ala Asp Arg Gly Ser Val Pro Ile Val Asn
85 90 95
Leu Lys Asp Glu Val Leu Ser Pro Ser Trp Asp Ser Leu Phe Ser Gly
100 105 110
Ser Gln Gly Gln Leu Gln Pro Gly Ala Arg Ile Phe Ser Phe Asp Gly
115 120 125
Arg Asp Val Leu Arg His Pro Ala Trp Pro Gln Lys Ser Val Trp His

130		135		140
Gly Ser Asp Pro Ser Gly Arg Arg Leu Met Glu Ser Tyr Cys Glu Thr				
145		150		155
				160
Trp Arg Thr Glu Thr Thr Gly Ala Thr Gly Gln Ala Ser Ser Leu Leu				
	165		170	175
Ser Gly Arg Leu Leu Glu Gln Lys Ala Ala Ser Cys His Asn Ser Tyr				
	180		185	190
Ile Val Leu Cys Ile Glu Asn Ser Phe Met Thr Ser Phe Ser Lys				
	195		200	205

<210> 4
 <211> 624
 <212> DNA
 <213> Mus musculus

<400> 4
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 cccctgtctg gaggcattcg tggatccgt ggagcagatt tccagtgtt ccagcaagcc 180
 cgagccgtgg ggctgtcggg caccttccgg gctttcctgt cctctaggct gcaggatctc 240
 tatagcatcg tgcgccgtgc tgaccggggg tctgtgccc tctgtcaacct gaaggacgag 300
 gtgctatctc ccagctggga ctccctgttt tctggctccc agggccaagt gcaaccggg 360
 gcccgcattc tttcttttga cggcagagat gtctgagac acccagcctg gccgcagaag 420
 agcgtatggc acggctcgga cccagtgagg cggaggctga tggagagtta ctgtgagaca 480
 tggcgaactg aaactactgg ggctacaggt caggcctcct ccctgtgtgc aggcaggctc 540
 ctggaacaga aagctgcgag ctgccacaac agctacatcg tcctgtgcat tgagaatagc 600
 ttcatgacct ctttctccaa atag 624

<210> 5
 <211> 8
 <212> PRT
 <213> Homo sapiens

<400> 5
 Ala Pro Gln Gln Glu Ala Leu Ala
 1 5

<210> 6
 <211> 38
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic primer

<400> 6
 actggtgacg cggcccatac tcatcaggac tttcagcc

<210> 7
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 7
aagggtatc gatctagctg gcagaggcct at

32

<210> 8
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 8
cactgcttac tggcttatcg

20

<210> 9
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 9
ctgatgagta tgggccgcgt caccagtgg

29

<210> 10
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 10
aagggtatc gatctagctg gcagaggcct at

32

<210> 11
<211> 35
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 11

gatctctaga ccaccatgca tactcatcag gactt

35

<210> 12

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 12

actggagaaa gaggtttatc tagctactag

30

<210> 13

<211> 18

<212> PRT

<213> Adenovirus

<400> 13

Met Arg Tyr Met Ile Leu Gly Leu Leu Ala Leu Ala Ala Val Cys Ser
1 5 10 15

Ala Ala

<210> 14

<211> 96

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 14

gatctctaga ccaccatgag gtacatgatt ttaggcttgc tcgcccttgc ggcagtctgc 60
agcgcgccc atactcatac tcatcaggac tttcag 96

<210> 15

<211> 29

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic primer

<400> 15
atcgatcata ctcacagga ctttcagcc 29

<210> 16
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
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primer

<400> 16
gcggccgcct atttgagaa agaggtcat 29

<210> 17
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 17
tttttttttc agtgtaaaag gtc 23

<210> 18
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 18
cagatgacat cctggccag 19

<210> 19
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 19
ctatacagga aagtatggca gc 22

<210> 20

<211> 118
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 20
gccaaagcttc catgagggcc tggatcttct ttctcctttg cctggccggg agggctctgg 60
cagcccctca gcaagaagcg ctgcgtcaca gccaccgca cttccagccg gtgctcca 118

<210> 21
<211> 123
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 21
ccaggtggag caccggctgg aagtcgcggt ggctgtgagc gagcgcttct tgctgagggg 60
ctgccagagc cctcccggcc aggcaaagga gaaagaagat ccaggccctc atggaagctt 120
ggc 123

<210> 22
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 22
gcgcatgtcg acagaatatg ggccaaac 28

<210> 23
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 23
gcgctactgc agagctaata agctacac 28

<210> 24
<211> 27
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
primer

<400> 24

ccggctagct taagggtggc gaccggt

27

<210> 25

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
primer

<400> 25

gcttcgaacg cgtagcggcc aaccctc

27